

Abstract

A device is provided for determining at least one parameter of a medium flowing in a line 3 in a main flow direction 18, particularly a parameter of the intake air mass of an internal combustion engine. The device includes a part 6, which can be inserted into the line 3 at a predetermined alignment with respect to the main flow direction 18 in such a way that a partial flow of the medium flowing in the line in the main flow direction 18 flows through at least one measuring channel 40 provided in the part 6 in a first direction a from an intake 41 of the measuring channel to an outlet 49 of the measuring channel, and a measuring element 9 situated in the measuring channel 40 for determining the at least one parameter. Between its intake 41 and its outlet 49, the measuring channel 40 features at least one channel segment 45 in which means 46,55 are located that cause flow vortices in this channel segment whereby liquid droplets and solid particles are advantageously deposited on the inner wall of the channel before they can reach the measuring element.

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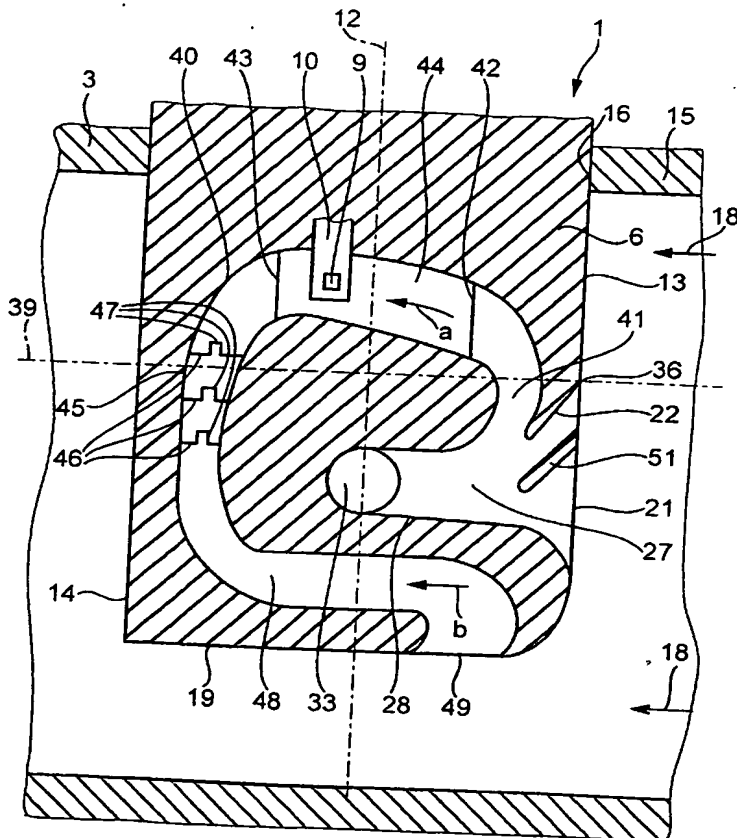
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(54) Title: AIRFLOW METER WITH DEVICE FOR THE SEPARATION OF FOREIGN PARTICLES

(54) Bezeichnung: LUSTSTROMMESSER MIT VORRICHTUNG ZUR ABSCHIEDUNG VON FREMDPARTIKELN



(57) Abstract: A device for the determination of at least one parameter of a medium flowing in a main flow direction (18) in a line (3), in particular, the mass of intake air for an internal combustion engine is disclosed. The device comprises a piece (6), which may be introduced into the line (3) with a given alignment with relation to the main flow direction (18), such that a partial stream of the medium flowing in the main flow direction (18) in the line (3) flows through at least one measuring channel (40), provided in the piece (6), in a first direction (a) from an inlet (41) into the measuring channel to an outlet (49) from the measuring channel and a measuring element (9) is arranged in the measuring channel (40), for determination of the at least one parameter. The measuring channel (40) has at least one channel section (45), between the inlet (41) and the outlet (49) thereof, in which means (46, 55) are arranged for the generation of eddies in said channel section, whereupon fluid droplets and solid particles are preferably deposited on the inner wall before being able to reach the measuring element.

(57) Zusammenfassung: Es wird eine Vorrichtung zur Bestimmung wenigstens eines Parameters eines in einer Leitung (3) in einer Hauptströmungsrichtung (18) strömenden Mediums, insbesondere der Ansaugluftmasse einer Brennkraftmaschine, vorgeschlagen. Die Vorrichtung umfasst ein Teil (6), das mit einer vorbestimmten

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